

## **REMARKS**

Claims 41-74 are pending in the application.

Appropriate headings have been added to the specification, and claims from the literal translation have been replaced by claims drafted in conformity with U.S. Patent practice.

The application in its amended state is believed to be in condition for allowance. However, should the Examiner have any comments or suggestions, or wish to discuss the merits of the application, the undersigned would very much welcome a telephone call in order to expedite placement of the application into condition for allowance.

Respectfully submitted,



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# For Examiner's Reference

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

## Listing of Claims:

Claims 1 – 40: Cancelled

41. (New) A microfocus x-ray apparatus, comprising:

an x-ray tube 4 that is provided with a target 6

means for bombarding the target with a target stream; and

means for regulating the intensity of x-ray radiation 20 that is produced, wherein said means for regulating includes means for regulating at least one parameter of said target stream, in particular a current strength of said target stream.

42. (New) A microfocus x-ray apparatus according to claim 41, wherein said target 6 is disposed on a main body 8 of said x-ray tube 4 such that it is electrically insulated relative to said main body.

43. (New) A microfocus x-ray apparatus according to claim 41, wherein a current sensor 24 is provided for detecting an actual value of a current strength of said target stream.

44. (New) A microfocus x-ray apparatus according to claim 41, wherein said means for regulating at least one parameter of said target stream includes a regulating device 22.

45. (New) A microfocus x-ray apparatus according to claim 44, wherein said regulating device 22 compares a detected actual value of said target stream with a prescribed desired value of said target stream and alters a control value in such a way that any difference between said desired value and said actual value is minimized.

46. (New) A microfocus x-ray apparatus according to claim 41, wherein a high voltage generator 12 is provided for producing a preferably essentially constant high voltage by

means of which electrons for generating an emission stream 14 of said x-ray tube 4 are accelerated in a direction toward said target6.

47. (New) A microfocus x-ray apparatus according to claim 45, wherein said control value is an emission stream 14 of said x-ray tube 4.

48. (New) A microfocus x-ray apparatus according to claim 44, wherein said regulating device 22 is provided with an electrical or electronic control circuit that forms a controller.

49. (New) A microfocus x-ray apparatus according to claim 44, wherein said regulating device 22 is provided with an electronic control circuit that is adapted to be controlled by a regulation software in such a way that regulation is effected in a software-controlled manner.

50. (New) A microfocus x-ray apparatus according to claim 48, wherein said regulating device 22 is provided with an electronic control circuit that includes a microcontroller.

51. (New) A microfocus x-ray apparatus according to claim 41, wherein regulation of said target stream is adapted to be activated and deactivated.

52. (New) A microfocus x-ray apparatus according to claim 51, wherein a further regulating device is provided for regulating an emission stream 14 of said x-ray tube 4 when regulation of said target stream is deactivated.

53. (New) A microfocus x-ray apparatus according to claim 51, wherein a target stream that momentarily flows when regulation of said target stream is activated forms a desired value of said target stream.

54. (New) A microfocus x-ray apparatus according to claim 52, wherein an emission stream 14 that momentarily flows when regulation of said target stream is deactivated forms a desired value for regulation of said emission stream 14 by said further regulating device.

55. (New) A microfocus x-ray apparatus according to claim 44, wherein said

regulating device 22 regulates said target stream in such a way that an exceeding of a prescribed or prescribeable maximum electrical output of said target 6 is prevented.

56. (New) A microfocus x-ray apparatus according to claim 51, wherein after an activation of said x-ray tube 4 an activation of regulation of said target stream is effected in a chronologically delayed manner.

57. (New) A microfocus x-ray apparatus according to claim 56, wherein activation of regulation of said target stream is effected when an emission stream 14 of said x-ray tube 4 achieves a prescribed or prescribeable desired value.

58. (New) A microfocus x-ray apparatus according to claim 46, wherein regulation of said target stream is adapted to be activated and deactivated, and wherein upon an alteration of a desired value of said high voltage, a deactivation of regulation of said target stream is effected until a new desired value of said high voltage is achieved.

59. (New) A microfocus x-ray apparatus according to claim 45, wherein regulating parameters of said regulating device 22 are alterable as a function of said high voltage.

60. (New) A microfocus x-ray apparatus according to claim 59, wherein upon a reduction of said high voltage said regulating parameters are altered in such a way that a lag time of regulation of said target stream is increased, and wherein upon an increase of said high voltage said regulating parameters are altered in such a way that the lag time of the regulation is reduced.

61. (New) A microfocus x-ray apparatus according to claim 41, wherein said x-ray tube 4 is provided with means via which an emission stream of said x-ray tube can be deflected or blocked in such a way that a striking of said emission stream 14 upon said target 6 is essentially prevented.

62. (New) A microfocus x-ray apparatus according to claim 61, wherein regulation of said target stream is adapted to be activated and deactivated, and wherein upon activation of

said means for deflecting or blocking said emission stream 14, a deactivation of regulation of said target stream is effected.

63. (New) A microfocus x-ray apparatus according to claim 51, wherein means are provided for determining whether a short circuit is present at said target 6, and wherein upon determination of a short circuit, said determining means deactivate regulation of said target stream.

64. (New) A method of regulating the intensity of x-ray radiation produced by an x-ray tube 4 of a microfocus x-ray apparatus 2, wherein said x-ray tube is provided with a target 6 and with means for bombarding said target with a target stream, said method including the step of: regulating at least one parameter of said target stream, in particular a current strength of said target stream.

65. (New) A method according to claim 64, wherein an actual value of a current strength of said target stream is detected.

66. (New) A method according to claim 64, wherein a detected actual value of said target stream is compared with a prescribed desired value of said target stream and alters a control value in such a way that a difference between said desired value and said actual value is minimized.

67. (New) A method according to claim 64, wherein a high voltage generator 12 is provided by means of which a preferably essentially constant high voltage is produced via which electrons for producing an emission stream 14 of said x-ray tube 4 are accelerated in a direction toward said target 6.

68. (New) A method according to claim 67, wherein said emission stream 14 is used as a control value.

69. (New) A method according to claim 64, wherein regulation of said target stream is adapted to be activated and deactivated.

70. (New) A method according to claim 69, wherein an emission stream (14) of said x-ray tube (4) is regulated when regulation of said target stream is deactivated.

71. (New) A method according to claim 69, wherein a target stream that momentarily flows during activation of regulation of said target stream is used as a desired value of said target stream.

72. (New) A method according to claim 69, wherein an emission stream (14) of said x-ray tube (4) that momentarily flows upon deactivation of regulation of said target stream is used as a desired value for regulating said emission stream.

73. (New) A method according to claim 64, wherein said at least one parameter of said target stream is regulated in such a way that an exceeding of a prescribed or prescribeable maximum electrical output of said target (6) is prevented.

74. (New) A method according to claim 69, wherein upon an activation of said microfocus x-ray apparatus (2) regulation of said target stream is activated in a chronologically delayed manner.